NPIC/TSSG/RED-1907-69
4 November 1969

MEMORANDUM TO: Chief, Special Contracting & Procurement Staff, TSSG

SUBJECT : Radiation Specifications for 1540 Light Table Illumination Sources

1. In a letter dated 20 October 1969, the [redacted] requested clarification of Paragraph 3.1.1.2 of the 24 July 1969 Development Objectives for the Split-Format 1540 Light Table and Mount for Various Microstereoscopes. 25X1

2. The specification in question related to radiation of the phosphor employed in the light sources for the table. The development objectives required that radiation be limited to specified maxima below 380 nanometers and above 750 nanometers. [redacted] questioned whether the intent of the specification required measurement of radiation throughout the entire electromagnetic spectrum below 380 nanometers and above 750 nanometers, or if measurement could be restricted to bands adjacent to the visible spectrum. 25X1

3. Investigation indicates that the last two sentences of Paragraph 3.1.1.2 of the subject development objectives should be changed to read:

"Radiation in the range of 200 to 380 nanometers will be limited to 0.5 micro watts/cm^2. Radiation in the range of 750 to 1,500 nanometers will be limited to 0.025 watts/cm^2."

4. Paragraph 3.1.1.2 also specifies that equivalent color temperature of the light sources must be 3000°K to 5000°K. A range of color temperatures of 6000°K to 6500°K is more appropriate for the viewing of color film, and at the same time is satisfactory for viewing black and white film. Both the [redacted] 25X1
25X1 [redacted] have indicated that changing the range of color temperature to 6000°K to 6500°K would not present a problem. NPIC personnel have stated the desirability of making the light sources compatible with color viewing. Therefore, the first sentence of Paragraph 3.1.1.2 of the subject development objectives should be changed to read:

"Broadband white illumination will be required with an equivalent color temperature between 6000°K to 6500°K at all luminance levels."

[redacted] 25X1

Chief, Research & Engineering Division,
TSSG

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